## IN THE CLAIMS

1. (Previously Presented) A plating system comprising:

an elongated upper channel formed by two upper shields and an elongated lower channel formed by two lower shields, wherein each channel is separated by a gap between the upper and lower shields; and

a plating solution horizontal sparger comprising a series of inlets oriented to direct any plating solution flowing through the inlets directly into one and towards another of the upper and lower channels.

2. (Original) The system of claim 1 further comprising:

an anode; and

a substantially planar cathode comprising a first surface conductive surface, a second conductive surface, and a perimeter edge, the first conductive surface and second conductive surfaces being substantially parallel to each other arid positioned on opposite sides of the cathode; wherein the sparger is positioned at least as close to the perimeter edge of the cathode as to either of the first or second conducting surfaces.

3. (Original) The system of claim 2 wherein the sparger directs any plating solution flowing through the inlets towards the cathode in a plane substantially coplanar with the cathode.

4. (Original) The system of claim 3 wherein:

each of the upper and lower channels comprises two substantially planar and parallel non electrically conductive sides that are substantially parallel to the cathode; and

the cathode is positioned at least partially within each of the upper and lower channels between the non electrically conductive sides.

5. (Original) The system of claim 4 wherein:

the upper and lower channels are positioned opposite each other and are separated from each other, the separation between the channels forming

a pair of solution egress slots; and

the channels are adapted to prevent current from flow between the anode and cathode other than through the egress slots.

6. (Original) The system of claim 5 wherein the egress slots are positioned approximately parallel to a center line of the cathode.

7. (Original) The system of claim 6 wherein the cathode comprises a dielectric substrate and the conductive surfaces are adapted to promote the formation of heat spreaders on the dielectric substrate.

8. (Original) The system of claim 1 wherein each of the upper channel and lower channel have a width less than or equal to one inch.

9. (Previously Presented) The system of claim 1 wherein the horizontal sparger directs any plating solution flowing through the inlets into the lower channel and towards the upper channel.

10. (Original) The system of claim 1 wherein each of the upper channel and lower channel have a width less than or equal to 0.5 inches.

11. (Original) The system of claim 1 wherein each of the upper channel and lower channel have a width less than or equal to 0.5 inches. and the further comprising a plurality of part holding clamps electrically coupled to a power source and positioned within the upper channel or the lower channel.

12. (Original) The system of claim 1 further comprising a plurality of anodes positioned outside and along the length of the upper and lower channels.

13. (Original) The system of claim 1 wherein the upper channel and lower channel are separated by a distance and at least one of the upper channel and lower channel are adapted to be moved to vary the distance.

14. (Original) The system of claim 1 wherein the shortest distance from a part being plated to a channel wall is less than the shortest distance between the channel wall and an anode.

Claims 15-18: Canceled.